

Date: Wednesday, 02/04/2008 3:39:35 PM
 User: Julie Lecocq

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services			Drawing Name	: X-TUBE EXTRUSION		
Job Number	: 38341 - 0M			Part Number	: D6008180		
Estimate Number	: 11108			Drawing Number	: D6008 REV A		
P.O. Number	:			Project Number	: N/A		
This Issue	: 02/04/2008 S.O. No. :			Drawing Revision	: A		
Prsht Rev.	: NC			Material	:		
First Issue	: / / Type : LANDING GEAR			Due Date	: 26/09/2008 Qty: 22 Um: Each		
Previous Run	: 34688						
Written By	:						
Checked & Approved By	: JD 08.4.03						
Comment	: Est Rev:C 04.06.15 Added tolerance to Step 2 KJ/JLM						

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
1.0	PG	PURCHASING
Comment: PURCHASING Issue P/O: 60063 C208/04/04 (22) a) Order as per Dwg D6008 b) Material: 3.250 x 0.438 wall 7075-T6/T6511 (WW-T-700/7 or QQ-A-225/9 or QQ-A-200/11) seamless aluminum tube c) Minimum ultimate tensile strength = 77 ksi d) Minimum tensile yield strength = 66 ksi e) Tolerance are per ASTM B210 (see details on Dwg D6008) f) Material certification required		
2.0	D6008180P	Crosstube extrusion
Comment: Qty.: 1.0000 Each(s)/Unit Total : 22.0000 Each(s) Crosstube extrusion		
3.0	PACKAGING 1	PACKAGING RESOURCE #1
Comment: PACKAGING RESOURCE #1 Receive & Inspect For Transit Damage Ensure material certification is attached		
4.0	QC6	DIMENSIONAL CHECK
Comment: DIMENSIONAL CHECK Ensure Material certification comply to Dwg D6008		

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Job Number:		
Seq. #:	Machine Or Operation:	Description :
5.0	HAND FINISHING1 	HAND FINISHING RESOURCE #1  Comment: HAND FINISHING RESOURCE #1 Chemical Conversion Coat as per QSI 005 4.1 <i>08/06/13</i>
6.0	QC3 	INSPECT POWDER COAT/CHEMICAL CONVERSION  Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION
7.0	PACKAGING 1 	PACKAGING RESOURCE #1  Comment: PACKAGING RESOURCE #1 Identify and Stock Location: <i>Back hall</i> <i>ZT 08-06-13 (24)</i>
8.0	QC21 	FINAL INSPECTION/W/O RELEASE  Comment: FINAL INSPECTION/W/O RELEASE <i>08/06/13 JJ</i>
Job Completion	 <i>MF 08-06-13</i>	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

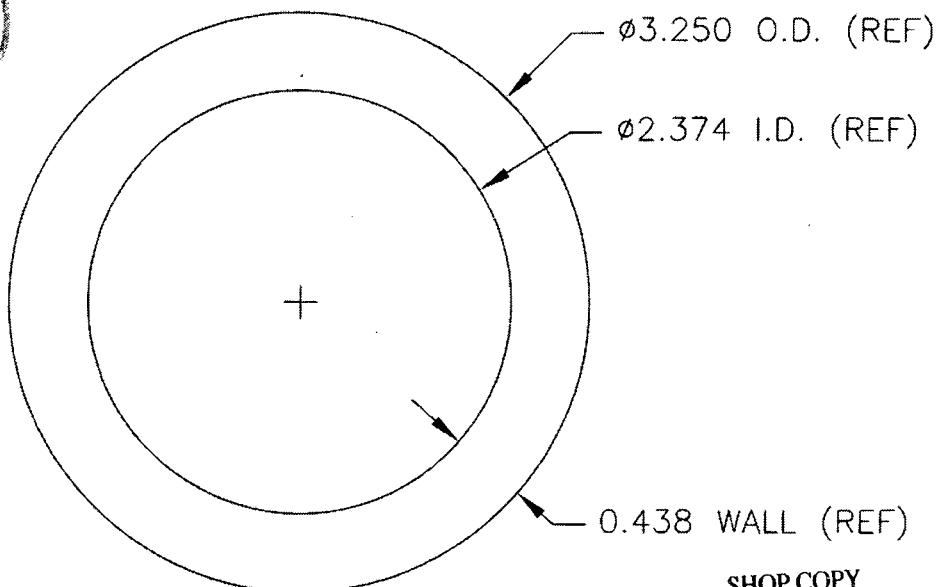


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ISSUED
00.11.17

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO. D6008
DATE		REV. A SHEET 1 OF 1
00.11.17		SCALE 1:1
A	00.11.17	NEW ISSUE

SPECIFICATION CONTROL DRAWING

RELEASED
00.11.24



NOTES

1) D6008-XXX CROSSTUBE

LENGTH

WHERE XXX IS LENGTH IN INCHES
EG. 180" LONG TUBE: D6008-180

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 38341

- MATERIAL: 3.250 OD x 0.438 WALL 7075-T6/T6511 (WW-T-700/7 OR QQ-A-225/9 OR QQ-A-200/11) SEAMLESS ALUMINUM TUBE.
MINIMUM ULTIMATE TENSILE STRENGTH = 77 ksi
MINIMUM YIELD TENSILE STRENGTH = 66 ksi
- TOLERANCES ARE PER ASTM B210 AS FOLLOWS:
O.D.: ± 0.008 MEAN (± 0.016 INCLUDING OVALITY)
WALL: ± 0.020 MEAN (± 0.044 INCLUDING ECCENTRICITY)
LENGTH: XXX $+0.125/-0.000$
STRAIGHTNESS: 0.010" DEVIATION / 12" LENGTH
- EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

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ALUNNA

Abnahmeprüfzeugnis 3.1 - EN 10204:2004

Inspection Certificate 3.1 - EN 10204:2004 / Certificat de Reception 3.1- EN 10204:2004

Kunde:
Client:

Dart Aerospace Ltd.

Produkt:

Product / Produit:

Spezifikation:

Specification:

Werkstoff:

Alloy/Alliage:

Abmessung

Size / Dimension

Kennzeichnung

Marking/Marquage:

Lieferung

Delivered Material / Matérial délivré:

1270 Aberdeen Street
K6A1K7 Hawkesbury, ON Canada

Rohre nahtlos gepresst

Tubes seamless extruded

-; AMS - QQ - A - 200/11E; -; -; Spezifikation Dart Aerospace D6008

Zeugnisnummer:

Cert No. / No. du certificat: 780/08

Bestellnummer:

PO00006063 Airfreight

Order No. / No. de commande

Auftrag:

Our Reference/Notre Reference: 29103/1

7075

Zustand:
Temper/État

T 6511

3,250 INCH x 2,374 INCH x 0,438 INCH x 180,000 INCH
D6008-180 3.250 x 0.438 x 180ALUNNA - Cert No. 780/08 - 7075 - T 6511 - Cast No. 81741 - AMS - QQA 200/11 - 3.250" OD X 0.438" Wall - Heat
Lot No. 1173 - ALUNNA Order Conf. No. 29103/1-1 - PO. 00006063

pcs.

lbs

24

1684

Country of Manufacture: Germany

1. Chemische Analyse

Chemical Analysis / analyse chimique

Charge/ Cast No.	Si min.	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Zr	Bi	Sn	Ni
	max.	0,40	0,50	1,2	0,30	2,1	0,18	5,1					
81741	0,07	0,14	1,46	0,04	2,47	0,19	5,83	0,04	0,01	0,03	0,01	0,01	0,0001

Hydrogen content: 0,10

ccm/100 g Al Elements without indication < 0,01 %

country of melt manufacturer: Germany

2. Mechanische Eigenschaften

Mechanical Properties / Valeurs Mécaniques

Anforderungen Requirements	tensile (Rm) ksi	yield (Rp0,2) ksi	elongation 2" %	elongation A %	Hardness HB	Heat Lot No.
	77,0	66,0				
1	85,840	78,590	11,0			
2	86,565	79,460	10,0			
3	85,985	78,735	11,0			
						1173 - 24 pcs.

Ergebnis der
Prüfungen:

Es wird bestätigt, daß die Lieferung geprüft wurde und den Vereinbarungen bei der Bestellannahme entspricht

Test results:
Resultats:We confirm that the delivery has been tested and applies to the agreements made on receipt of the order
Nous confirmons que la livraison a été contrôlée et correspond avec les conventions faites à la réception de la commandeCertified acc. DIN EN ISO 9001:2000 and DIN EN 9100:2003
valid until 2010-11-11

Cert. - Reg. No.: 001959 QM; 001959 ASH

KrampeR
03.06.2008

Aluminiumwerk

Packinglist ALUNNA AG

Customer PO	PO. 00006063
ILUNna ref. no.	29103/1
Date:	06.03.08

We hereby declare that the wooden packing material are totally free from bark and apparently

Boxmarking:

Dart Aerospace PO. 0006063 Airfreight
D 6008 - 180 Made in Germany
Dest. Hawkesbury Ont. Canada

